

INTERNATIONAL SEARCH REPORT

International Application No

PCT/DE2004/002221

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 F02D31/00 F02D41/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F02D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/132701 A1 (MABUCHI MAMORU ET AL) 19 September 2002 (2002-09-19) paragraph '0007! - paragraph '0017! paragraph '0028! paragraph '0037! - paragraph '0046! figures 1-4	1-3, 6-8, 11
X	EP 1 277 940 A (ROBERT BOSCH GMBH) 22 January 2003 (2003-01-22) paragraph '0004! - paragraph '0011! paragraph '0019! - paragraph '0030! figures 2-4	1-11
X	EP 1 308 342 A (FORD GLOBAL TECHNOLOGIES, INC) 7 May 2003 (2003-05-07) paragraph '0041! paragraph '0064! - paragraph '0079!	1-11
	-/--	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- *G* document member of the same patent family

Date of the actual completion of the international search

10 February 2005

Date of mailing of the international search report

21/02/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax (+31-70) 340-3016

Authorized officer

Libeaut, L

EU 839709 19445

BEST AVAILABLE COPY

INTERNATIONAL SEARCH REPORT

International Application No

PCT/DE2004/002221

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2003/186781 A1 (LANDES JAMES W ET AL) 2 October 2003 (2003-10-02) abstract paragraph '0017! - paragraph '0020! figures 1,2	1-3,6,7, 11
X	DE 101 14 040 A1 (ROBERT BOSCH GMBH) 11 October 2001 (2001-10-11) paragraph '0016! - paragraph '0020! figures 2-4	1-3,5-8, 10,11
X	US 5 245 966 A (ZHANG ET AL) 21 September 1993 (1993-09-21) column 3, line 38 - column 5, line 56 column 1, line 30 - column 2, line 36 figure 2	1-3,5-8, 10,11

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/DE2004/002221

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 2002132701	A1	19-09-2002	JP	2002276447 A	25-09-2002
EP 1277940	A	22-01-2003	DE	10135143 A1	30-01-2003
			EP	1277940 A2	22-01-2003
			JP	2003049693 A	21-02-2003
EP 1308342	A	07-05-2003	US	2003097215 A1	22-05-2003
			EP	1308342 A2	07-05-2003
US 2003186781	A1	02-10-2003	GB	2387452 A	15-10-2003
DE 10114040	A1	11-10-2001	JP	2001349229 A	21-12-2001
US 5245966	A	21-09-1993	DE	4141947 A1	24-06-1993
			JP	5248302 A	24-09-1993

BEST AVAILABLE COPY